Andrew Schechtman-Rook
rook166@gmail.com https://github.com/AndrewRook
(917)-836-4267

EXPERIENCE

Director, Data Science 2023-Present
Capital One

- Designed and built a package to streamline core business metrics SQL calculations, used by over 50 analysts for critical reporting needs.
- Owned the design, implementation, and upkeep of the DS Technical Interview, a key interview given to every data science candidate in the US.

Senior Manager, Data Science 2018-2023
Capital One

- Developed the longest-lived, most successful internal data science tool in the company, used in production models by dozens of data scientists across lines of business.
- Guided ongoing development of the core credit card valuations model scoring platform, delivering regular releases of new and updated models while improving the robustness and maintainability of platform infrastructure.
- Led technical development of model monitoring tools, mentoring three junior data scientists to deliver a maintainable package on time and to spec.
- Deployed the first cloud-based credit card underwriting model in the company via a dockerized Python API, with an estimated incremental value of $35MM per year.

Manager, Data Science 2016-2018
Capital One

- Led development of a language-agnostic prototype automated machine learning model deployment framework for cloud-based platforms

Principal Data Scientist 2014-2016
Capital One Labs

- Implemented a novel approach to deliver internal technical trainings, providing over 5000 hours of classes with no instructors.
- Programmed and deployed an interactive course completion dashboard using Flask and dc.js to provide progress reports to individual students as well as company leadership.

Graduate and Postdoctoral Researcher 2007-2014
University of Wisconsin-Madison

- Devised a fast Voronoi Tessellation algorithm in Python to adaptively bin images, preserving spatial resolution while maximizing signal in images with over one million pixels.
- Assembled a hybrid C++/Python pipeline to process hundreds of high-resolution images with minimal user intervention, resulting in a 10x increase in analysis precision.

TECHNICAL SKILLS

Programming: Python (numpy, scipy, pandas, sklearn, xgboost, matplotlib), shell scripting
Databases, Orchestration, Web Design: Flask, MySQL/PostgreSQL, Prefect, Snowflake
Cloud Computing/Devops: AWS, Docker, CircleCI, Jenkins
Operating Systems: Linux, Mac OSX
Data Analysis: Parallel and distributed computing, machine learning, image processing

EDUCATION

PhD, Astronomy, University of Wisconsin-Madison December 2013
MS, Astronomy, University of Wisconsin-Madison June 2009
BS, Astronomy, Case Western Reserve University May 2007